

Submission to the Inquiry into the Health Impacts of Air Pollution in Victoria

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Introduction

This submission to the Inquiry into the Health Impacts of Air Pollution in Victoria focuses on woodsmoke pollution. It recounts the experience of residents from across Victoria who have been impacted by woodsmoke. It also comments on the Victorian government's current policy on wood heaters and how this operates in practice.

Drawing on our experiences of living with woodsmoke pollution as well as the latest publicly-available research data, this submission argues that the Victorian government is neglecting its duty to address the serious health consequences of woodsmoke pollution. Although wood heaters are used by a very small proportion of Victorian residents, they create significant harms to the health of the community and the environment.

We note that one of the aims of this Inquiry is to 'identify state-wide practical, real-time, cost-effective mitigation strategies'. Based on the experiences of Victorian residents, our submission provides valuable case study data on how woodsmoke exposure affects everyday health and wellbeing, and how the available strategies to address and mitigate woodsmoke pollution currently operate in practice. Our experiences show that existing strategies are based on faulty assumptions and are failing to protect Victorians from the harmful health impacts of woodsmoke pollution.

Our submission provides recommendations for how the current response can be improved to ensure that Victorian air quality meets international best practice standards.¹ These recommendations are supported by the broader Australian community; recent nationally representative survey data suggests that the majority of Australians support regulations to reduce the health impacts of wood heater smoke and to phase out wood heaters ([Asthma Australia 2021](#), n = 25,000 Australians). This reflects mounting community concern about the impacts of woodsmoke pollution. It is likely that Victorians became more aware of these impacts after being affected by the smoke from the 2020 summer bushfires, which generated increased media attention to the health harms of wood smoke (see for example, [letters to the editor](#), [print](#) and [radio media stories](#) of residents).

Who are we?

[Communities for Clean Air Network](#) formed in early 2020. We are a group of residents who have been brought together by our shared experiences of living with the impacts of residential woodsmoke. We believe that government needs to protect public health by phasing out wood burning in our towns and suburbs. We also support actions to address other forms of air pollution and to reduce global warming.

Case study 1: Preston resident

I rent in Preston. About 8 years ago I began to notice smoke in my backyard coming from my neighbour's wood heater. My neighbours were an elderly couple in their 90s who lived there with their son. I tried to talk with them about the woodsmoke. The son was bringing home contaminated material to burn. The chimney is very close to and lower than the eaves of my house. I would find that the smoke in winter was so thick and constant that it would frequently get into the living areas of my home, even my bedroom some nights. It would make me ill causing a constant headache, nausea and chest pain. My neighbours were not interested in doing anything to reduce the smoke.

I tried to get help from my local Darebin Council. The council officer told me that I had to provide proof and suggested I keep a diary – which I did for years. This involved being outside day and night to record the levels of woodsmoke. I am in my sixties and have some ongoing health conditions. Having to record this smoke not only involved breathing in considerable smoke but it was also cold and difficult to do. After providing this to the Council I felt optimistic that something would be done. However, the council officer visited my neighbour and was in and out the door in about 10 minutes. The officer told me that the owner was aware of the correct operation of a wood heater and so that was the end of it. I felt that I would get no further help from the Council.

The health harms of woodsmoke pollution

The case studies provided in this submission illustrate some of the everyday impacts that Victorian residents suffer due to exposure to local woodsmoke pollution. In these case studies, residents identify how neighbouring woodsmoke has affected their health, wellbeing and the ability to enjoy home environments and backyard spaces. The concerns expressed by residents are well-founded, given that a comprehensive body of evidence now demonstrates clear links between woodsmoke exposure and ill-health in the community. For example:

- Woodsmoke contains known carcinogens and fine particles, which enter the bloodstream and can affect every organ in the body.
- Even low levels of woodsmoke pollution can have health impacts.
- Woodsmoke contributes to the development of asthma in childrenⁱⁱ and can trigger symptoms in people who already have asthma. For example, a recent survey found those with asthma are twice as likely to experience respiratory symptoms when exposed to woodfire heater smoke compared to the general population (Asthma Australia, 2021).
- Woodsmoke contributes to other respiratory illnesses, cardiovascular disease, premature birth and premature death. It affects brain and lung development, worsens respiratory conditions, and is associated with increased incidence of strokes, heart attacks and dementia.

Case study 2: Emerald resident

I've lived on the edge of Emerald Village in the Dandenong Ranges for 35 years, and a wood stove was my only heating for over 25 years. I used to burn off yearly following CFA directions for fuel reduction, until I got expert advice this was ineffective and unnecessary. Then I googled woodsmoke. I feel very let down by council failure to communicate the known serious health impacts of wood smoke to me and my community, and to adequately regulate it. Over 4 years I have given information on biomass smoke to my two local governments Cardinia and Yarra Ranges. This has mostly been ignored and never shared with residents as requested. There is no smoke health risk assessment for open air burning local laws, or CFA fuel reduction burns, and no EPA engagement in their design. I now have mild small airway impairment and frequently end up gardening in a smoke mask to complete tasks. Smoke restricts my activities outside and seeps inside my house. My neighbours' response to my health concerns is 'I have a right to burn'

The current policy and approach in Victoria

The Environment Protection Agency's (EPA) Waste Management Policy (Solid Fuel Heating) was assessed through a [Policy Impact Assessment \(PIA\) on 25 January 2018](#). The PIA received 17 submissions, almost all of which (15) raised objections and concerns about the EPA's policy on Solid Fuel Heating (wood heaters). The PIA quantified the total health costs from particle (PM) emissions from the use of wood heaters in Victoria at over \$8 billion over the next ten years. It also acknowledged that evidence shows that there is no safe level of woodsmoke emissions.ⁱⁱⁱ

The PIA report provided a list of the ways that the EPA addressed compliance and supported correct operation of wood heaters. These included the nuisance provisions under the *Public Health and Wellbeing Act 2008*, which provide that local governments are responsible for responding to nuisance from wood burning and can investigate and act as appropriate; and public information and education programs provided by the EPA.

While the PIA recognised the scale and seriousness of the health impacts of woodsmoke, it proposed to reduce wood heater pollution by just 0.4%, by adopting the current Australian standard for wood heater design. The PIA put forward no other amendments. The government adopted the proposed policy about wood heater standards and made no other amendments to the policy.^{iv}

The stated aims of the current policy

Following the PIA process, a [variation to the Waste Management Policy \(Solid fuel Heating\)](#) came into effect on 2 October 2018.

The stated objectives of the policy were to reduce emissions and protect the environment from the hazards that may be posed by the emissions from solid fuel heating. To meet these objectives, the stated policy actions included:

- Implementing national standards in Victoria by prohibiting the manufacture and supply of solid fuel heaters that do not meet the Australian Standards.
- Sets maximum emission limits and minimum efficiency requirements for solid fuel heaters manufactured and sold in Victoria.

However, research evidence and our experiences as affected residents demonstrates that the current policy focus is based on flawed assumptions and is not protecting the community from the harmful effects of woodsmoke pollution. Despite acknowledging that woodsmoke pollution is a significant health concern that costs billions to the Victorian economy, the government and the EPA have made little effort to develop practical, real-time, proactive and cost-effective mitigation strategies to address wood smoke pollution.

Key problems with the current policy

Based on our experiences as residents impacted by woodsmoke pollution, the key problems with the current policy on wood heaters include:

- EPA Victoria provides limited information on the health harms of woodsmoke pollution and only a **passive and non-targeted education strategy** (brief information on the EPA website, focused mainly on correct operation of wood heaters).
- Current policy permits wood heaters to be used in residential areas without restriction. Thus, Victorian residents can be exposed to hazardous woodsmoke 24/7, all year round.
- The **absence of any restrictions** on wood heater use contributes to the false belief by many in the community that woodsmoke is either not harmful or presents minimal risk to health.
- The current policy is based on **flawed assumptions** that new wood heaters that comply with the latest Australian standards produce minimal emissions.

Case study 3: Northcote resident

For fifteen years we have lived next to two neighbours who use their wood heaters as their sole source of heating. Throughout winter and even in warmer months, our home is surrounded by smoke. We have a nice backyard we can't use for most of the year. The smell of smoke infiltrates our house despite our attempts to seal gaps. Both of our kids have been diagnosed with asthma, resulting in multiple doctor and hospital visits. We only connected this to our exposure to woodsmoke after our GP enquired about levels of smoke around our home.

We have tried talking with our neighbours and even offered to pay for other forms of heating, but they refused. We tried to get help from our local council. Council officers visited our neighbours and provided instruction on correct operation – but have confirmed that the heaters meet current Australian standards. And yet we still experience smoke all day and overnight in winter and there are no restrictions on use. We hired a particle monitor which confirmed that the levels of smoke particles were high in and around our house – similar levels to if we had a smoker in the house. Council visits have made no difference except to aggravate our neighbours, who feel entitled to use their wood heaters whenever they wish.

We have a stressful debate every winter about moving. About five years ago we made the decision to sell up and move – and looked at quite a few places – each time we would notice chimneys close by. We worried we could easily end up in the same situation – given new heaters are being installed all the time. Around this time our direct neighbour told us he was thinking of replacing his wood heater – we were so relieved - but five years on he never has. This little bit of hope has kept us here. In recent times we have purchased air filters – they are noisy and expensive, but we hope they are reducing our exposure. We never open windows – even on warmer days – otherwise we risk a house full of smoke. We feel really stuck. It is an ongoing source of significant stress and really impacts the enjoyment of our home.

- The EPA’s air quality **monitoring has been shown to be inadequate** and is not representative of the local levels of woodsmoke pollution. This means high levels of hazardous air at the local level are not being recorded.^v

In addition, it appears that the current policy which permits residential woodsmoke is not congruent with the Public Health and Wellbeing Act 2008, which includes many principles that, if adhered to, would not allow residents to suffer ill health because of other people’s woodsmoke pollution. These include the precautionary principle, principle of primacy of prevention, principle of accountability and the principle of proportionality.^{vi}

Experiences of how the current approach is failing residents

The following section provides further discussion and more detail about how the policy operates in practice as experienced by local residents impacted by woodsmoke pollution.

National standards for solid fuel heaters are ineffective

The current policy is based on incorrect assumptions about the emissions from new wood heaters that meet the latest Australian standards. Wood heater emissions are tested under laboratory conditions. Even in those conditions, heaters emit smoke that is harmful to health; as the PIA acknowledged, ‘There is no evidence of a level of particulate matter (PM) where health effects do not occur’. Further, in real-life conditions, even when householders know their emissions are being measured, average emissions have been found to be 8 times worse than in lab tests.^{vii} Our experience as residents (see case study 3 and 7) attests to the fact that, in real life conditions, the emissions from wood heaters are far higher than the standards would allow.^{viii}

Woodsmoke pollution is an increasing problem in Victorian communities (see case study 5). In 2018 the EPA estimated that wood heater use would remain steady, based on ABS data from 2006 (Australian Social Trends, 2006 - Environmental Impact of household energy use). However, this ABS report is now 14 years old and a recent article in the Age newspaper reported that significantly more people are burning wood. The Australian Home Heating Association (the peak body for the sale and manufacturing of wood heaters) states that they sell 40,000 to 50,000 wood heaters a year. Wood heaters are increasingly being highlighted as a design feature which adds to property values in new and old homes. It is common for real estate agents to feature wood heaters in advertising properties.

Case study 4: Glen Eira resident

A nearby household has a stockpile of old fencing material stored at the side of the house, which it is my observation they use as firewood; the smoke from their chimney is highly offensive and results in me feeling nauseated and unwell. I recently decided to make a complaint about this to Council; the Civic Compliance officer assigned to the case made a phone call to the property to advise of the complaint; the household denied burning fencing material, and the officer said that was effectively the end of matter - all Council can do is educate on the use of clean wood. No enforcement or inspection, leaving our family with no option to resolve this health issue.

Case study 5: Reservoir resident

My wife and I have lived in Reservoir for over 45+ years and have experienced the changes with woodsmoke firsthand. We have lived at our current home for 26+ years and initially the woodsmoke issue was only two residents that would burn during the winter.

Over the past 10 years the number has grown to well over seven nearby properties which are within 300 meters of our home. There are many more within a 2 km radius. Every year for the past 3-4 years I have contacted council to have this changed with no result.

In winter we cannot even go outside and enjoy some fresh air and are literally imprisoned 24/7 in our homes. Not even a simple luxury to open a window and get fresh air. Surely this should be looked at from a mental health situation.

Community education is inadequate

The Victorian EPA has not implemented any proactive education campaigns to inform the public about the harms of woodsmoke. Rather, the EPA's education approach is passive and provides only basic information on its website. Thus, most Victorians who own a wood heater, as well as their neighbours and the community are unaware of the health impacts of wood smoke exposure (see case study 2). The failure to proactively inform the public about these risks puts both wood heater owners and the broader community at risk of harm.

Advice and monitoring are ineffective

The only advice EPA provides to residents concerned about a neighbour's woodsmoke is to talk to their neighbours, to use dispute resolution procedures if negotiations fail, and to contact their council or the EPA. However, the real-world experiences of residents who have attempted to act on the information and advice provided by the EPA demonstrates that the current approach is failing to protect residents.

Neighbours are left with responsibility for resolving disputes

A key piece of advice on the EPA website is for people concerned about woodsmoke to [talk with their neighbour](#). This is the same advice offered by the EPA and Councils in relation to neighbourhood issues such as excessive noise, littering or barking dogs. However, these other issues are supported by clear standards and regulations (such as timeframes for allowable noise and advice to contact police regarding noise pollution outside allowable hours). In contrast, wood heater use remains unrestricted and can be used 24/7 and at all times of the year. This means that those affected by woodsmoke pollution have no backing or framework to address these issues when they talk to neighbours using a wood heater. Instead, they are left with a responsibility to resolve these issues themselves.

The **option of dispute resolution** is recommended by the EPA. However, in practice there is nothing compelling the neighbour with the wood heater to participate in dispute resolution, and our experience suggests approaching a neighbour about this issue often results in threats and hostility, particularly when owners are ill-informed about the impacts of their wood heater use on neighbours (see case studies 3, 6, 7, 8 and 11).

The current policy permits wood heaters to be operated day and night in residential areas, which puts nearby neighbours at risk of health harms, such as respiratory and cardiovascular disease and cancers. Framing air pollution as a neighbourhood dispute, akin to noisy dogs or rubbish on a nature strip, minimises the significance of the health impacts, and conveniently places on the onus on individuals to address if the pollution is concerning them.

Councils cannot adequately monitor woodsmoke

Councils are required to respond to complaints about localised woodsmoke. Council officers may visit wood heater owners and generally provide information about correctly operating the wood heater. However, as the case studies demonstrate (see case studies 4, 7, 8) it is almost impossible for Councils to adequately monitor residential woodsmoke for the following reasons.

Case study 6: Gippsland resident and GP

I am a senior rural generalist doctor. Part of my job is to advocate on public health issues affecting rural communities. My family has been impacted by woodsmoke mostly from nearby wood heaters operating from April to October. I found that talking to neighbours about wood heaters was completely ineffective. I had to tolerate verbal abuse, respond to an intervention order, and even respond to letters of complaint sent to both of my employers, which had significant effects on my professional life. My local council has not responded effectively. EPA and DELWP likewise have offered no protection.

- **It is resource intensive:** Council officers are not resourced to wait outside the homes of wood heater owners so they can monitor use.
- **Poor wood heater use often occurs after hours:** Often the poor use of a wood heater, such as allowing the fire to smoulder - occurs after hours and late in the evening or overnight. A Council officer cannot directly witness this incorrect use unless they work after hours. This means Council officers rarely observe wood heater use in action (See case studies 3, 7 and 9).
- **Unavoidable time lag:** There is generally a considerable time lag between when a resident calls a council officer about excessive smoke and the time it takes to attend the property. By the time the Council arrive the worst of the smoke may have abated.
- **Use occurs in private homes:** As wood heaters are located inside people's homes, Council officers cannot practically monitor what people burn in the wood heater.
- **Contaminated wood can be easily hidden:** Even if Councils were authorised to inspect whole properties (they generally just look where the wood heater owner tells them they store their wood), they still cannot be sure that the wood heater owner does not store damp, CCA-treated or painted wood elsewhere (see case study 4).
- **Resident monitoring cannot provide required burden of proof:** In practice, the impacted resident is required to do the monitoring and relay this back to Council. Council officers will often suggest the impacted neighbour keep a 14-day smoke diary (as mentioned in case studies 1 and 7). The Council officer may then use the data from the diary to visit the wood heater owner and discuss the use of their wood heater. However, it is difficult for Councils to depend on this 'second hand' information to enforce change. A wood heater user can easily challenge a resident's smoke diary with their own version. Thus, there is no independent person who can observe the smoke and verify the concerns of a neighbour affected by woodsmoke.
- **Wood heater ownership is viewed by some as a 'right' and this leads to justification for thwarting the efforts of authorities:** Given that wood heaters are allowed and there are no restrictions on their use, some wood heater owners feel wood burning is a 'right' and oppose any suggestion that they limit or reduce the use of their wood heater (see case studies 2 and 3). Some even feel empowered to threaten their neighbour to use their heater more unless the neighbour stops complaining to Council— knowing that they are unlikely to face any consequences.

Case study 7: McKinnon resident

In 2015 a new neighbour moved in next door and began burning painted and treated construction waste wood in an outdoor fire pit, burning all night, multiple nights per week. Smoke would engulf our property and enter the home, causing my family great distress. Fire pits are unlawful in Glen Eira, but when I made a complaint to council I was told that because the offence was being committed out of hours, inspectors could not visit and I would have to provide evidence. I was asked to provide written logs, photo and video evidence, but still the fires continued. I made countless pleading phone calls, over a period of three years. For every repeated complaint the Council continued to advise me to keep collecting evidence for a potential court proceeding.

After bearing this burden for three torturous years, I invoked the powers in the Public Health & Wellbeing Act to advise the Council that if they did not act promptly on this matter I would take the case to the Magistrates Court myself (on their behalf) and enlisted the help of a lawyer. This finally prompted the Council to take firmer action that stopped the burning. But by then not only had my family been chronically exposed to highly toxic emissions, but I was also left with mental, emotional and social impacts from the stress of dealing with an unresponsive council - and living in fear of neighbours who were menacing and vindictive.

Four years later, Council attempted to introduce a change to the local law to allow backyard burning, stating it was beneficial for the social and mental health of the community to gather around a fire. The high number of community submissions arguing the negative health impacts of smoke pollution prevented the law change. It has become very evident to me that Council does not have the will or capacity to deal with smoke pollution, even though they have been given the responsibility to do so.

Councils are reluctant to use the *Public Health and Wellbeing Act 2008*

Councils have no standards to work with in terms of what constitutes a nuisance under the Public Health and Wellbeing Act 2008 in relation to woodsmoke. There is therefore no consistent approach and it appears few if any Councils have used the provisions under the Act. To our knowledge, the Public Health and Wellbeing Act 2008 is not being used by Victorian Councils to protect residents from woodsmoke. Instead, residents are being left to take legal action at considerable financial cost to themselves (see case studies 7, 8, 11).

It is also our experience that Councils are reluctant to raise with the EPA their concerns about the ineffectiveness of the current approach, perhaps due to apathy or concerns that the Council will be held responsible for the ineffectiveness. Instead, councils continue to offer this inadequate response, wasting resources and doing nothing to improve the situation for impacted neighbours. In our experience the neighbour gives up hope and stops calling the Council when they realise the Council is of no help.

The EPA provides inadequate data on air quality in Victoria

According to the Victorian Auditor General's Office's [report](#) into air quality monitoring in Victoria in 2018 the EPA does not currently produce reliable or representative data on air pollution. The EPA currently have only a small number of monitoring stations across Victoria, and so the data reported by the EPA is not capturing the high levels of pollution in many local areas. The EPA could establish low cost monitoring across the state through the use of PurpleAir units which have been validated as providing almost identical measurements to the NSW Government equipment in [recent research](#). However, currently residents are often forced to pay for their own monitoring equipment to assess levels in their area (see case studies 4, 10, 11).

Neither the EPA or councils are prepared to take responsibility

While the EPA advises wood heater owners to only burn dry wood and to operate a wood heater correctly, there are no specific restrictions on how often a wood heater can be used. The EPA's website suggests residents can contact the EPA if

Case study 8: Clayton resident

For six years I have been trying to get help with a neighbour's wood heater - which is located in a garage, and only metres from my home and others. I have written to every Monash City Councillor many times about this problem, and to every State and Federal MP in my area. Council officers have visited the owner a number of times and have approved its operation without any monitoring of the smoke throughout the day. Council says the wood heater conforms to the height and distance regulations, is burning correctly with little observable emissions, and so there is nothing it can do to prevent the pollution within the nuisance provision of the 2008 Public Health and Wellbeing Act. Council told me to enter into mediation with my neighbour and that they would spend no more time and resources on investigating my complaint. And if I continued to complain to the owner of the wood heater - the owner may charge Council with harassment! Monash City Council is more concerned with protecting itself from litigation than protecting residents from woodsmoke

Case study 9: Reservoir resident

I managed to get the Council Officer to send a letter to the residents in our area to ask they be a little more respectful of neighbours and be aware that some people have medical conditions, are trying to do their washing on a weekend when we have been at work late all week, etc. This seems to have had little effect as they continue to burn all hours of the day and evenings and well into the night. They burn on days when the temp is around 18 degrees! It seems we are fighting a losing battle with Council/EPA. Surely there needs to be a fairer system for all. Whilst I would like to see it banned, at least there should be some restrictions in respect to hours you can burn, and when the temperature is below a certain level etc.

concerned about wood smoke. However, in our experiences, the EPA simply passes the responsibility on to local councils.

As discussed, it is not practical for Councils to monitor individual wood heater emissions. Even in cases where visits from Council and appeals from the impacted neighbour improve the operation of the wood heater, achieving improvements can take many months, if not years. In the meantime, near neighbours can be subject to hazardous levels of air pollution. This means a small minority of Victorians (who are largely uninformed about the health impacts) can damage their own health and that of their communities.

A history of inaction in addressing residential woodsmoke

In Victoria, a lack of political will to reduce residential woodsmoke in any meaningful way is evidenced by the limited scope of the EPA's 2018 policy impact assessment (PIA) on Solid Fuel Heating. Instead of using this opportunity to evaluate the effectiveness of the current approach and set meaningful targets for emission reduction, the EPA limited itself to determining whether Victoria should adopt the 'efficiency standard' as a mandatory requirement for all new wood heaters in Victoria. Similarly, DELWP's Air Quality Strategy is now two years overdue. It is disappointing to see that this lack of political will also exists in NSW, as the recently released NSW draft Clean Quality Strategy recommends support to Councils to better manage woodsmoke with guidance, tools and assistance, yet makes no commitment to actually reduce woodsmoke emissions.

Meanwhile, the EPA continues to promote a list of 'actions' in their publications that are ineffective in practice. There is no target to meaningfully reduce woodsmoke and no efforts to evaluate the current effectiveness of the approach. The EPA have never (to our knowledge) surveyed local councils or residents about the effectiveness of current approach for the purpose of improving the response.

Concerningly, it appears woodsmoke is becoming more prevalent in our towns and suburbs and not less. The EPA does not have an ability to effectively monitor air pollution. Governments appear spooked by a small but highly vocal minority of residents who feel strongly about their right to burn wood – even though there is now evidence from a nationally representative survey by the Asthma Foundation that the majority of community members support increased restrictions and phasing out wood heater use.

Conclusion and recommendations

This submission documents how the current policy on wood heaters is failing to protect Victorians from woodsmoke pollution.

Effectively reducing residential woodsmoke will involve a carefully designed package of measures. Evidence from efforts to address woodsmoke pollution in Launceston Tasmania demonstrates that rebates to replace wood heaters with non-polluting heating options, combined with education and targeted contact with wood heater owners about the health harms, made a significant difference in reducing wood heater use, while rebates on their own were ineffective. This successful federally-funded woodsmoke program reduced deaths in winter from respiratory disease by 28% and cardiovascular disease by 20%, for a cost of about \$21 per resident.

Case study 10: Darebin resident

We have tried on many occasions to get the EPA involved and even asked they provide assistance with emissions monitoring as we know some neighbours were burning materials such as treated fence palings, old timber from homes which contained lead paint, pallets which would have been chemically treated for ISPM export compliance with methyl bromide. The EPA always hand-balled the matter back, saying it was a local council matter. I was of the understanding that air quality was an EPA responsibility. They were even useless at offering advice as to where / how we could obtain the equipment to monitor the air at our own cost

We ask the Inquiry to advocate for a package of measures that set meaningful targets for reduction of woodsmoke, including the phasing out of wood heaters in residential areas that reflects the urgency of the problem in terms of impacts on health and climate change. Protecting the air and the health of Victorians requires political will and leadership. We cannot afford to wait another few decades for an effective approach. Further it is critical that recommendations are practical and made with a clear line of sight to their real-world impact.

We ask that the Inquiry recommend the following:

A phase-out program with a target date – which would include:

1. **No new wood heaters installed:** Legislation should be enacted to prevent wood heaters/fireplaces being installed and remove existing wood heaters/fireplaces upon the sale of a house. This costs the taxpayer nothing and helps to clear our air.
2. **Replacement scheme:** Extend the current subsidy programs that aim to encourage households to switch to healthier heating options (i.e. sustainably sourced electric heating - cost efficient heat pumps) with a focus on ensuring households with wood heaters access the program as a first priority.
3. **Support the above with a widespread public education campaign.** Similar to campaigns developed to encourage people to quit smoking, the campaign should highlight the risk to health posed by woodsmoke in order to raise levels of health literacy in the general population about particle pollution and should include a targeted education to wood heater/fireplace owners about harms to health from woodsmoke.

Phasing out wood heaters and other unnecessary wood burning will have significant health and wellbeing benefits for the whole Victorian community, the vast majority of whom are not regularly burning wood for heating. Importantly,

Case study 11: Moreland resident

For me, the trouble started in late March 2011. My neighbours had two chimneys - one in their kitchen and one in a shed - and used them 20 hours a day. Our house was flooded with smoke night and day. I tried to talk to them and offered to replace their wood heaters, but they continued. One day I saw them burning old painted weatherboards. I took my complaint to Moreland City Council. They visited my neighbour, saw them burning weatherboards and advised them to stop. That did nothing. I kept complaining, but the council officers could only come out to check during the day and they did nothing anyway. If I complained to the council or to my neighbours, in retaliation there would be more smoke. So, I got a lawyer to write a letter offering to replace the wood heaters and saying we would proceed with legal action if they did not stop the smoke coming onto our property. They did nothing. It got worse, that August we had so much smoke night and day that we called the fire department three times. My husband, daughter and I got sick - we had smoker's cough. I tried the council again. Their head environmental officer came out and told me that unless they could see smoke haze in our home, they would do nothing. Our car started to get broken windows. We found a brick in our letter box. So, we got a new lawyer. We petitioned the court to have their chimney tested for residues. We completed other air quality testing for ourselves. We sent letters and spent an enormous amount of money. The result of the chimney test showed that the top of their chimney was full of lead residue and every other carcinogenic component found in woodsmoke at high levels. We had our case. Prior to going to court my neighbours voluntarily put in new wood fire heaters and chimneys, most likely at the advice of their lawyer. It made no difference to the smoke coming into our home, but it made them look reasonable. We had court-appointed mediation with them and during this meeting they agreed to stop burning altogether when they saw our case against them. They also paid us a small amount of compensation, but it was a fraction of what we had spent to get to this point. Our mediator recommended we accept because he said he believed our lives were in danger. We were so devastated by this experience. We had spent 3 and half years breathing in toxic smoke from neighbours who were using their wood heaters as incinerators for their rubbish. My children spent the first years of their lives breathing in this pollution. We had lost too much money and had begun to hate our home, so we sold it and moved to another house. We still suffer from wood smoke from nearby houses. Even though we do not have a wood heater right next door now, I know that anyone of them could on a whim put in wood fire heater.

recent survey data suggests that the majority of Australians support regulations to phase-out wood heaters to prevent woodsmoke pollution (Asthma Australia, 2021).

Recent research papers/articles

The following provides links to some of the recent research on wood burning health impact and climate change.

Health

- Asthma Australia (2021) Woodfire Heaters and Health Survey Key Findings Report (n=25,039), available online: <https://asthma.org.au/about-us/media/public-would-support-a-phase-out-of-woodfire-heaters/>
- Cserbika, Chen, McConnell, Berhane, Sowell, Schwartz, Hackman, Kan, Fan, Herting (2020), *Fine particulate matter exposure during childhood relates to hemispheric-specific differences in brain structure*, Environment International, Volume 143, October 2020, <https://www.sciencedirect.com/science/article/pii/S0160412020318882>
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ⁱ Much of this document was previously provided to the Department of Environment, Land, Water and Planning (DELWP) in mid-2020 to inform their proposed Victorian Air Quality Strategy – which is now some two years overdue. Both local government and individual residents made representations to DELWP in 2020. DELWP received a significant number of submissions during the Victorian Air Quality Strategy consultation about residential woodsmoke and the government’s current policy position.

ⁱⁱ In NZ, just a single additional modern wood stove per hectare increased by 7% the risk that a child under 3 would need to visit the hospital emergency department for all causes except accidents.

ⁱⁱⁱ The [EPA’s PIA on Solid Fuel Heating](#) states *There is no evidence of a level of particulate matter (PM) where health effects do not occur* and that *‘particulate matter.. was classified as a human carcinogen by the International Agency for Research on Cancer in 2013. ‘And that ‘particles are easily inhaled and can be retained in, or absorbed through, a person’s lungs. The health effects of particle exposure include increased mortality rates, cardiopulmonary disease and reduced lung function’ and further that ‘strong associations were also found for admissions for asthma in children (0–14 years) and all age groups’.*

^{iv} Even worse, the evaluation was based on the false assumption that emissions from new heaters would average 2.6 grams per kg wood burned (g/kg). There are no Australian studies of real-life emissions of stoves with lab test results under 1.5 g/kg , but in New Zealand, emissions of heaters with average lab test emissions of 0.85 g/kg averaged 6.5 g/kg, implying that new stoves are 8 times more polluting than the lab test results and almost as polluting as stoves installed 20 years ago.

^v Victorian Auditor General Office Report ‘Improving Victoria’s Air Quality’ March 2018

<https://www.audit.vic.gov.au/report/improving-victorias-air-quality?section=>

^{vi} Permitting new heaters with estimated benefits of a few hundred dollars per year but health costs of over \$4,000 per year (see <https://www.mdpi.com/2073-4433/11/8/856/htm>) is inconsistent with the principle of proportionality. Allowing neighbours to suffer serious health problems because of pollution from a nearby wood heater violates the principle of accountability.

^{vii} In real life 6.5 grams per kg wood burned for heaters with average lab test emissions of 0.85 grams per kg.

^{viii} As demonstrated by the NZ real-life emissions studies showing that real-life emissions were eight times worse than the lab tests.